AF/2621

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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on 10 October, 2007.

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Dated: 9 October, 2007

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Serial No.	:	09/168,644 Confirmation No. (None Assigned)
Appellant	:	Mark D. Conover
Filed	:	October 8, 1998
Title	:	ENCODING A STILL IMAGE INTO COMPRESSED VIDEO
TC/A.U.	:	2621
Examiner	:	Anand Shashikant Rao
Docket No.	:	2134
Customer No.	:	23320

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Sir:

APPEAL BRIEF

Having previously prevailed in an appeal of claim rejections for obviousness under 35 U.S.C. § 103(a)[1], pursuant to 37 C.F.R.

[1] A copy of the June 7, 2005, "Decision on Appeal" by the United States Patent and Trademark Office ("USPTO") Board of Patent Appeals and Interferences ("BPAI") appears in

§ 1.192, through Appellant's undersigned attorney, the Appellant submits the following brief appealing a rejections of claims for anticipation under 35 U.S.C. § 102(e) and obviousness under 35 U.S.C. § 103(a) that appears in an Office Action mailed on April 17, 2007.

Real Party in Interest

The real party in interest is Pixel Tools Corporation, a California Corporation having an office at 10721 Wunderlich Drive, Cupertino, California 95015.

Related Appeals and Interferences

Appeal No. 2005-0252 for Application No. 09/168,644 heard on May 3, 2005, and having a Decision on Appeal mailed June 7, 2005.

Status of the Claims

Claims 1-7 are pending in this application.

Independent claim 1 has been finally rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent no. 6,324,217 entitled "Method and Apparatus for Producing an Information Stream Having Still Images" which issued November 27, 2001, on an

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a "Related Proceedings Appendix" included herein.

application filed July 8, 1998, by Donald F. Gordon ("the Gordon patent").

Dependent claims 2, 3, and 5-7 have been finally rejected 35 U.S.C. § 103(a) as being obvious based upon:

1. the Gordon patent; in view of
2. United States Patent no. 5,838,678 entitled "Method and Device for Preprocessing Streams of Encoded Data to Facilitate Decoding Streams Back-to Back (sic)" which issued November 17, 1998, on an application filed July 24, 1996, by Joseph W. Davis and Shawn M. Hayes ("the Davis, et al. patent").

Dependent claim 4 has been finally rejected under 35 U.S.C. § 103(a) as being obvious based:

a. upon the Gordon patent; in view of
b. United States Patent no. 6,310,919 entitled "Method and Apparatus for Adaptively Scaling Motion Vector Information in an Information Stream Decoder" which issued October 30, 2001, on an application filed September 25, 1998, by Dinei Afonso Ferreira Florencio ("the Florencio patent").

The preceding final rejections of claims 1-7 are being appealed

Status of Amendments

The most recent amendment of any of pending claims 1-7 appeared in a response to a February 12, 2002, Examiner's Action that the USPTO received on July 19, 2002. The text of the pending clams are identical to those whose allowability was upheld in the June 7, 2005, "Decision on Appeal."

Summary of Claimed Subject Matter

As recited in independent method claim 1, the present invention encompasses:

> [a] method for producing a compressed video bitstream that includes compressed video data for a plurality of frames from data that specifies a single still image
> * * *
> whereby decoding of the compressed video bitstream produces frames of video which produce images that do not appear to pulse visually.

The invention solves a problem that appears in images produced by a conventional MPEG decoder when decoding a conventionally MPEG encoded video bitstream that reproduce a still image, particularly a still image containing text.

As described in the pending application in a text that begins on page 3 in line 23, a conventionally encoded MPEG video bitstream includes a sequence of groups of pictures ("GOPs") one of which is identified in FIG. 2 by reference number 52. Each GOP begins with an intra ("I") frame that usually precedes at least one predicted ("P") frame and several bidirectional ("B") frames. Detail in

decoded MPEG still images tends to be lower at the beginning of each GOP when an I frame is decoded, increases during decoding of successive P frames and B frames in the GOP, only to decrease again upon decoding the next I frame.

Thus, decoding the conventionally encoded MPEG compressed video bitstream of a still image frequently produces a video image that appears to pulse visually, usually at a frequency identical to the frequency at which GOPs occur in the compressed video bitstream, e.g. twice per second. In many instances, visual pulsing of the still image produced by decompressing a MPEG compressed video bitstream is commercially unacceptable.

As recited in pending independent claim 1, the method which solves the problem of visual pulsing of images produced from a video bitstream that is conventionally MPEG encoded from a still image that the present patent application claims:

1. fetches data for the still image, p. 14, ll. 4-7 and FIG. FIG. 4, elements 104 and 106;
2. encodes the data for the single still image into data for an I frame, p. 14, ll. 6-10 and FIG. 4, element 102;
3. stores the encoded I frame data, p. 14, ll. 10-12 and FIG. 4, element 102; and
4. assembles the compressed video bitstream by appropriately combining data for:
   a. at least a single copy of the stored I frame;

b. at least one null frame; and

c. various headers required for decodability of the compressed video bitstream,

p. 15, l. 8 - p. 31 l. 6 and FIG. 4 elements 118 and 42.

Grounds of Rejection to Be Reviewed on Appeal

1. Whether claim 1 is anticipated under 35 U.S.C. § 102(e) by the Gordon patent.
2. Whether claims 2, 3, and 5-7 are unpatentably obvious under 35 U.S.C. § 103(a) based upon:
   a. the Gordon patent; in view of
   b. the Davis, et al. patent.
3. Whether claim 4 is unpatentably obvious under 35 U.S.C. § 103(a) based:
   a. upon the Gordon patent; in view of
   b. the Florencio patent.

Argument

The Gordon Patent's Disclosure

The Gordon patent alleges that its invention provides a rapid, computationally efficient method for generating well-behaved movie information screen ("MIS") information streams. "The above-

described invention provides an information stream that will produce, upon a presentation device, a **substantially motionless image**"[2] . . . ."

In its "Background of the Disclosure" the Gordon patent states that the then:

> existing methods for generating MIS information streams disadvantageously require extensive encoding of video information to produce well-behaved bitstreams, i.e., bitstreams that do not cause decoder buffer underflow or overflow. For example, an MIS information stream generated by repeatedly encoding an image will produce a well-behaved MIS bitstream at the cost of significant computational resources and time (e.g., two to 30 minutes to encode a two minute MIS display or presentation)." (Col. 1, line 61 - col. 2, line 3)

The Gordon patent's "Summary of the Invention" in col. 2 beginning at line 9 expressly states that:

> [t]he invention comprises a method and apparatus for processing an image to produce an encoded video information stream comprising **a sequence of replicated group of picture (GOP) information structures**, **each GOP including an intra-coded frame (I-frame) and a plurality of forward predictive coded frames (P-frames)**, wherein the I-frame of the initial GOP is formed by intra-coding the still image, and each P-frame comprises, e.g., a substantially zero motion vector P-frame.
>
> * * *
>
> Specifically, a method according to the invention for processing an image to produce a compressed information stream comprises the steps of: intra-coding the image to produce an intra-coded information frame (I-frame); **associating the intra-coded information frame with a plurality of forward predicted information frames (P-frames) to form a group of pictures (GOP)**; and replicating the GOP to produce the compressed information stream.

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[2] See the Gordon patent in col. 7 at lines 50-52.

> An apparatus according to the invention for processing an image to produce an MPEG-like information stream comprises: **a frame encoder**, for producing an intra-coded (I-frame) in response to said image, and **for producing N number of forward predicted information frames (P-frames) in response to said I-frame**, where N is an integer; a memory, for storing said I-frame and said N number of P-frames; and a controller, for causing said memory to repetitively output said I-frame and said N number of P-frames as a video elementary stream. (Emphasis supplied.)

As for generating the MIS stream, **as clearly depicted in the flow diagram of FIG. 3**[3], a hi-lited copy of which appears in the Evidence Appendix of this Appeal Brief, **the Gordon patent presents two (2) ways for encoding an information stream that allegedly produces a substantially motionless image**.

1. An embodiment in which a **frame encoder 110**, included in the apparatus 100 depicted in FIG. 1, **actually performs a predictive encoding operation for each of N P-frames that form the initial GOP structure** whereby the frame encoder 110 provides both the GOP's:

   a. I-frame; and

   b. N P-frames.[4]

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[3] A first at the middle of the flow diagram of FIG. 3 in block 335, and a second along the left hand side of the flow diagram through blocks 327, 328 and 329.

[4] See the Gordon patent in col. 4, line 66 - col. 5, line 6.

2. A MIS generator apparatus 100 according to the invention depicted in the block diagram of FIG. 1[5] that preferably uses **pre-defined data structure NULL P-frames** that are simply inserted into the appropriate memory location following the stored I-frame.[6]

Regarding the first embodiment for the MIS generator apparatus 100 illustrated in FIG. 1 as described in col. 4, line 66 - col. 5, line 6, the Gordon patent further expressly discloses:

> **[a] NULL forward predictive coded frame comprises a "zero motion vector frame** (i.e., a P-frame having relatively inconsequential motion vectors) **based on an anchor frame, e.g., the still image representative I-frame**. Thus, each NULL [forward predictive] P-frame, when decoded, will produce **a picture that is virtually identical** to the anchor frame from which it is based. (Col. 3, lines 41-47) (Emphasis supplied.)
>
> **Predictive encoding of the NULL P-frames is not the preferred embodiment of the invention**; however, such [forward] predictive encoding may be convenient in some cases where the encoder circuitry or functionality of a system is not readily adaptable to the preferred NULL P-frame insertion process. (Col. 6, lines 55-60) (Emphasis supplied.)
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> It must be noted that **the P-frames may be NULL P-frames (as previously described) or P-frames that have been [forward] predicted**, in the standard manner, using the initial I-frame. (Col. 7, lines 54-57) (Emphasis supplied.)

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[5] See the Gordon patent in col. 3 at lines 13-14.

[6] See the Gordon patent in col. 4, line 55-58 and col. 6, lines 55-56.

the Gordon patent in col. 4 at lines 53-63 expressly states as follows.

> **Regarding the less preferred alternative embodiment for the MIS generator** apparatus 100 illustrated in FIG. 1
>
> **In the above-described apparatus 100, the GOP replicator 120 utilizes the insertion of N NULL P-frames, where N is an integer, after an I-frame to form a GOP. In this embodiment of the invention each of the NULL P-frames comprises a pre-defined data structure** that is simply inserted into the appropriate memory location following the stored I-frame. **In the case of an MPEG2 information stream, a NULL frame utilized by the inventor comprises a 38 byte data structure** that informs the decoder to utilize all the macroblocks from the previous anchor frame and to do so without displacing the macroblocks (i.e., zero motion vectors). (Emphasis supplied.)

A description of the Gordon patent's invention as illustrated in a flow diagram of FIG. 3 appears in col. 6 at lines 27-49.

> The routine 300 then proceeds to step 326, where a query is made as to whether the N P-frames utilized in the formation of the GOP structure are to be predicted (using, e.g., the frame encoder) or inserted (i.e., NULL P-frame insertion). **If the query at step 326 is answered in a manner indicating that the P-frames are to be inserted, then the routine 300 proceeds to step 335, where N NULL P-frames are added to the GOP buffer after the I-frame stored in the buffer at step 325.** The routine 300 then proceeds to step 340.
>
> **If the query at step 326 is answered in a manner indicating that the P-frames are to be predicted**, then the routine 300 proceeds to step 327, where the encoded I-frame is stored in, e.g., an anchor frame buffer 111 associated with the frame encoder 110. **The routine 300 then proceeds to step 328, where the frame encoder performs N forward predictive operations utilizing the stored I-frame (or the original input frame I) to produce N NULL P-frames.** The routine 300 then proceeds to **step 329, where the N NULL P-frames are stored in the GOP buffer after the I-frame stored in the buffer at step**

> **325**. Thus, a single group of pictures (GOP) is produced comprising an I-frame followed by N P-frames. In the exemplary embodiment N is equal to 14, however, N can be any number. The routine 300 then proceeds to step 340. (Emphasis supplied.)

The Gordon Patent's Claimed Invention

The Gordon patent includes three (3) independent claims, i.e. claims 1, 10 and 13, whose texts respectively appear in a side-by-side comparison montage of Exhibit A to this Appeal Brief. These independent claims respectively encompass:

1. "**forwarded predicted information frames (P-frames)**" associated with an intra-coded information frame (I-frame);[7]
2. "substantially zero motion vector **forward predicted (P-frame) information frames**" associated with an intra-coded information frame (I-frame);[8] and
3. "a frame encoder, for producing an intra-coded (I-frame) in response to said image, and **for producing forward predicted information frames (P-frames) in response to said I-frame**."[9]

Clearly, the text of independent claim 13 expressly encompasses only the less preferred embodiment of the invention described in

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[7] See the Gordon patent independent claim 1, col. 8, lines 53-57.

[8] See the Gordon patent independent claim 10, col. 9, lines 32-38.

[9] See the Gordon patent independent claim 13, col. 10, lines 6-9.

col. 4, line 66 - col. 5, line 6, and depicted in FIG. 3's block nos. 327, 328 and 329. The text in the Gordon patent describes using a plurality of forward predictive coded frames (P-frames) created by the apparatus 100 actually performing a predictive encoding operation. Since the Gordon patent's independent claims, i.e. claims 1, 10 and 13, all use essentially same phrase, i.e. "**forwarded predicted information frames (P-frames)**," a consistent construction of the Gordon patent's claim terminology mandates that independent claims 1 and 10 must also encompasses only the less preferred embodiment of the invention described in col. 4, line 66 - col. 5, line 6, and depicted in FIG. 3's block nos. 327, 328 and 329.

Confirming the preceding internally self-consistent construction of the Gordon patent's independent claims 1, 10 and 13, the reference's "Background of the Disclosure" in col. 1 at lines 28-38 characterizes compression and delivery of video as follows.

> In particular, the above-referenced standards,[10] and other "MPEG-like" standards and techniques, compress, illustratively, video information using intra-frame coding techniques (such as run-length coding, Huffman coding and the like) and **inter-frame coding techniques (such as forward and backward predictive coding, motion compensation and the like)**. Specifically, in the case of video processing systems, **MPEG and MPEG-like video processing systems are characterized by prediction-based compression encoding of video frames** with or without

[10] MPEG-1 and MPEG-2 and ATSC A/53 identified in col. 1, lines 12-23.

intra- and/or inter-frame motion compensation encoding. (Emphasis supplied.)

The Gordon patent's "Summary of the Invention" appearing in col. 2, lines 10-42 similarly confirms that independent claims 1, 10 and 13 encompass only the less preferred embodiment of the invention described in col. 4, line 66 - col. 5, line 6, and depicted in FIG. 3's block nos. 327, 328 and 329.[11]

Based upon:

1. the texts of the Gordon patent's independent claims 1, 10 and 13 excerpted above;
2. the description of compression and delivery of video described in the Gordon patent's "Background of the Disclosure" excerpted above;
3. the Gordon patent's "Summary of the Invention;" and
4. upon the texts excerpted above which describe in detail the Gordon patent's invention;

Appellant respectfully submits the Gordon patent's independent claims, i.e. claims 1, 10 and 13, are all limited to the less preferred embodiment of the invention described in col. 4, line 66 - col. 5, line 6, and depicted in FIG. 3's block nos. 327, 328 and 329, which uses a plurality of forward predictive coded frames

[11] The word "null" appears nowhere in the Gordon patent's "Summary of the Invention."

(P-frames) created by the apparatus 100 actually performing a predictive encoding operation.[12]

The Pending Claims Are Novel Over the Gordon Patent

Assuming merely for the sake of argument that the Gordon patent and the present application both disclose and both claim the same invention[13], **controlling legal precedent together with uncontroverted facts proved by a July 12, 2002, declaration by the inventor Appellant, Mark D. Conover**, a copy of which is included in this Appeal Brief's Evidence Appendix ("the Conover declaration"), **bar rejecting claim 1 under 35 U.S.C. § 102(e) based upon the Gordon patent**.

Manual of Patent Examining Procedure ("MPEP") Eighth Edition Rev. 5, August 2006, § 2121.01, p. 2100-55 citing Elan Pharm., Inc. v. Mayo Foundation for Medical and Education Research, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 (Fed. Cir. 2003), states the legal precedent that bars rejecting claim 1 under 35 U.S.C. § 102(3) based upon the Gordon patent. "The **disclosure in an assertedly**

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[12] In this Brief Appellant does not attempt contending or proving that the Gordon patent lacks an enabling disclosure of forward predictive coded frames (P-frames) generated by the apparatus 100 actually performing a predictive encoding operation.

[13] Please note that a subsequent section of this Appeal Brief establishes that the Gordon patent and the present application claim different inventions.

anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject matter is insufficient, if it cannot be produced without undue experimentation." (Emphasis supplied.)

Less than one (1) year ago, the Court of Appeals for the Federal Circuit decision in Impax Labs. v. Aventis Pharms., 468 F.3d 1366, 1381, 81 USPQ2d 1001, 1011-12 (Fed. Cir. 2006) further explained the preceding controlling legal principle.

> In order to be anticipating, a prior art reference must be enabling so that the claimed subject matter may be made or used by one skilled in the art. Amgen Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1354 (Fed. Cir. 2003); Helifix, Ltd. v. Blok-Lok, Ltd., 208 F.3d 1339, 1346 (Fed. Cir. 2000); Akzo N.V. v. U.S. Int'I Trade Comm'n, 808 F.2d 1471, 1479 (Fed. Cir. 1986). Prior art is not enabling so as to be anticipating if it does not enable a person of ordinary skill in the art to carry out the invention. See Elan Pharms., Inc. v. Mayo Found., 346 F.3d 1051, 1057 (Fed. Cir. 2003) . . . ; In re Donohue, 766 F.2d 531, 533 (Fed. Cir. 1985) ("[P]rior art ... must sufficiently describe the claimed invention to have placed the public in possession of it. Such possession is effected if one of ordinary skill in the art could have combined the publication's description of the invention with his own knowledge to make the claimed invention.") (citation omitted).
>
> * * *
>
> "Whether a prior art reference is enabling is a question of law based upon underlying factual findings." Minn. Mining & Mfg. Co. v. Chemque, Inc., 303 F.3d 1294, 1301 (Fed. Cir. 2002). In Amgen, we stated that, when, as here, an accused infringer asserts that either claimed or unclaimed material in a prior art patent anticipates patent claims asserted against it, the infringer is entitled to a presumption that the allegedly anticipating material is enabled. 314 F.3d at 1355 ("[A] court cannot ignore an asserted prior art patent in evaluating a defense of invalidity for anticipation, just because the accused infringer has not proven it enabled."). However,

> "[i]f a patentee presents evidence of nonenablement that a court finds persuasive, the trial court must then exclude the particular prior art patent in any anticipation inquiry, for then the presumption has been overcome." Id.

As depicted in FIG. 3 of **the Gordon patent** and as described previously herein, that reference **identifies the following two (2) ways for generating an MPEG information stream that allegedly produces upon a presentation device a substantially motionless image**.

1. Using an MPEG encoder and data for an I-frame, generating and storing predictively coded P-frames as depicted in blocks 327 through 329 of FIG. 3.
2. Merely adding pre-defined data structure NULL P-frames to GOP buffer as depicted in block 335 of FIG. 3

Claim 1 pending in this patent application encompasses only the second of the two preceding methods for generating, in the terminology of the Gordon patent, **an MIS stream that allegedly produces upon a presentation device a substantially motionless image**.

Identifying the deficiencies in the Gordon patent's disclosure, **the Conover declaration proves the following two (2) facts which establish at least two (2) independent prima facie cases that the Gordon patent lacks an enabling disclosure** at least for the more preferred of the reference's two (2) methods.

1. For typical transmission of MPEG compressed video data and for typical MPEG decoders, nothing will appear of a

still image encoded in accordance with the disclosure of the Gordon patent.[14]

2. Decoding an elementary MPEG bit stream compiled by at least one embodiment disclosed the Gordon patent produces images that pulse visually.[15]

In addition to the deficiencies of the Gordon patent's disclosure identified above, the Conover declaration in paragraph no. 21 identifies the following erroneous statements in the reference.

1. In FIG. 3 and in a description thereof set forth in col. 5 at line 59-60, the Gordon patent incorrectly expressly discloses that a target bit rate is determined in step 310. This is erroneous because the target bit rate must be determined during system specification, i.e. when configuring both the MPEG encoder and the target MPEG decoder.

2. Decoding of an elementary MPEG bit stream generated by the predictive loop, which the Gordon patent depicts in elements 327,-329 of FIG. 3 and the text in col. 6 at lines 37-50, produces images that pulse visually for the

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[14] See ¶¶ 8-17 in the Conover declaration.

[15] See ¶¶ 18-20 in the Conover declaration.

reasons explained in the pending patent application beginning on page 8 at line 22.

3. The Gordon patent states in col. 4 at lines 58-63 that:

> [i]n the case of an MPEG2 information stream, **a NULL frame utilized by the inventor comprises a 38 byte data structure** that informs the decoder to utilize all the macroblocks from the previous anchor frame and to do so without displacing the macroblocks (i.e., zero motion vectors). (Emphasis supplied.)

MPEG-2 cannot escape past a slice, and a slice can not extend past a horizontal scan line. Therefore, the preceding statement is incorrect because the minimum amount of data required to encode a single 720x480 frame in accordance with the MPEG-2 specification is 318 bytes, not 38 bytes as disclosed in the text quoted above from the Gordon patent.

4. From col. 6, line 62 through col. 7 line 4 the Gordon patent states that:

> data representative of the stored GOP is coupled to the output of GOP replicator 120 as video elementary stream CV. After replicating the stored GOP (step 340) the routine 300 optionally proceeds to step 345, where time stamps within the individual frames comprising the group of pictures are adjusted. For example, the presentation time stamp (PTS) and/or decode time stamp (DTS) associated with each of the frames may be adjusted to provide appropriate timing information to the resulting bitstream.

The preceding statement is incorrect because the presentation time stamp (PTS) and/or decode time stamp (DTS)

are part of an MPEG system stream and are not part of an MPEG elementary stream.

The only statement or allegation which Appellant has identified in Office Actions subsequent to the Conover declarations's arrival at the USPTO on July 19, 2002, that attempts to rebut the preceding prima facie case of non-enablement is a statement, excerpted below, that appears in selected portions of a single paragraph of the April 17th Office Action's pages 6-7.

> The applicant argued at pages 14-23 of the amendment filed February 2, 2006 concerning in general the traversal of the rejection under 35 USC 102(e) based upon the Gordon patent because . . . the Gordon patent lacks an enabling disclosure of pre-defined data structure NULL frames, ...
>
> * * *
>
> The Examiner respectfully disagrees.
>
> * * *
>
> And regarding the lack of an enabling disclosure by Gordon as argued by the applicant, the Examiner wants to point out that MPEP 2121 states that "When the reference is relied on expressly anticipates or makes obvious all of the elements of the claimed invention, **the reference is presumed to be operable**", and "The level of disclosure required within a reference to make it an "enabling disclosure" is the same no matter what type of prior art is at issue. It does not matter whether the prior art reference is a U.S. patent, foreign patent, a printed publication or other". Therefore, **it is submitted that the Gordon patent contains an enabled disclosure and anticipates the claimed invention**. (Emphasis supplied.)

Initially, Appellant notes that the preceding statement identifies no facts which contradict or rebut the facts appearing in the Conover declaration. Rather the preceding excerpt from the April 17th Office Action merely asserts a legal conclusion, unsupported

by any fact(s), that the Gordon patent **presumably** contains an enabling disclosure. Appellant further respectfully observes that none of the Office Actions subsequent to July 19, 2002, identify any information, in addition to that contained the Gordon patent, which would allegedly make that reference's disclosure enabling.

Since the Conover declaration establishes a prima facie case that the Gordon patent lacks an enabling disclosure, Appellant respectfully submits that the April 17th Office Action's exclusive reliance on a presumption that the Gordon patent provides an enabling disclosure violates the express holding in Impax Labs. supra. Thus, the Conover declaration's having overcome the presumption that the Gordon patent contains an enabling disclosure, and in the absence of any additional disclosure(s) which, if combined with the Gordon patent, would make the reference's disclosure enabling:

1. Appellant has proven that the Gordon patent lacks an enabling disclosure; and
2. both MPEP § 2121.01 and Impax Labs. bar rejecting pending claim 1 under 35 U.S.C. § 102(e) based upon the Gordon patent.

The Gordon Patent Claims A Different Invention

The preceding argument traversing the rejection of claim 1 under 35 U.S.C. § 102(e) based upon the Gordon patent because the reference lacks an enabling disclosure proceeds on an implicit assumption, made merely for the sake of argument and without any examination or proof, that the Gordon patent and the present application both disclose and both claim the same invention. For reasons set forth in greater detail below, Appellant respectfully submits that such an assumption is fallacious.

The Conover declaration, in addition to presenting a prima facie case that the Gordon patent lacks an enabling disclosure, in numbered paragraphs 22-29 and Exhibit A thereto also proves a date of invention for the subject matter encompassed by claims 1-7 that precedes the filing date of the patent application which issued as the Gordon patent.

MPEP Eighth Edition Rev. 5, August 2006, § 706.02(b), pp. 700-26 - 27 states that:

> [a] rejection based on 35 U.S.C. § 102(e) can be overcome by:
>
> (A) Persuasively arguing that the claims are patentably distinguishable from the prior art;
>
> * * *
>
> (D) Filing an affidavit or declaration under 37 C.F.R. § 1.131 showing prior invention, **if the reference is not a U.S. patent . . . claiming the same patentable invention as defined in 37 C.F.R. § 41.203(a)**. (Emphasis supplied.)

> Affidavits or declarations under 37 CFR 1.131 may be used, for example:
>
> * * *
>
> (B) **To antedate a reference that qualifies as prior art under 35 U.S.C. 102(e), where the reference** has a prior art date under 35 U.S.C. 102(e) prior to applicant's effective filing date, and **shows but does not claim the same patentable invention**. (MPEP Eighth Edition Rev. 5, August 2006, § 715, pp. 700-271) (Emphasis supplied.)

Since the Conover declaration's paragraphs 22-29 clearly establishes Appellant's "prior invention," **the only issue remaining is whether the declaration traverses the rejection of claim 1 under 35 U.S.C. § 102(e) because the Gordon patent and the pending patent application claim different inventions**.

Based upon the analysis of the Gordon patent's independent claims 1, 10 and 13 set forth above, and upon the analysis of presently pending independent claim 1 also set forth above, **Appellant respectfully submits that the present application and the Gordon patent claim different inventions**. The present application discloses and claims, in the Gordon patent's terminology, only **predefined data structure NULL P-frames**. This is to be contrasted with the Gordon patent's **claimed**, less preferred embodiment of the invention, that is described in the Gordon patent's col. 4, line 66 - col. 5, line 6, and depicted in FIG. 3's block nos. 327, 328 and 329 thereof. For the reasons set forth above, the Gordon patent's independent claims 1, 10 and 13 encompasses producing a MIS stream using a plurality of **forward predictive coded frames (P-frames)**

created by the apparatus 100 actually performing a predictive encoding operation. Consequently, in accordance with MPEP §§ 706.02(b) and 715 excerpted above **Appellant respectfully submits that:**

1. **the July 12, 2002, Conover declaration traverses the rejection of independent claim 1 under 35 U.S.C. § 102(e) because the Gordon patent "shows but does not claim the same patentable invention;"** and
2. therefore the abandonment of the rejection of pending independent claim 1 under 15 U.S.C. § 103(e) based upon the Gordon patent appearing in the October 11, 2002, Office Action is sound and proper.

Claims 2-7 Traverse Rejection for Obviousness Under 35 U.S.C. § 103(a)

The April 17, 2007, Office Action rejects dependent claims 2, 3, and 5-7 as being obvious under 35 U.S.C. § 103(a) based upon the Gordon patent in view of the Davis, et al. patent. In rejecting dependent claims 2, 3, and 5-7, **the only explanation which the April 17th Office Action provides for combining the references appears in the following single, conclusory sentence** that appears about the middle of the Office Action's page 4.

> Therefore, it would have been obvious to one of ordinary skill in the art, having the Gordon and Davis et al references in front of him/her, would have had no difficulty in providing the required header data for the MPEG encoding/decoding as well as including the bitstream

> stuffings in the compressed video bitstream as shown in Davis et al for the compressed video data within encoder and decoder of Gordon for the same well known video bit processing and standard compliance purposes as claimed.

Appellant respectively observes that the preceding sentence excerpted from the April 17th Office Action fails to identify any factual basis for combining the references. Consequently, the April 17th Office Action lacks concrete evidence that is required for properly concluding that dependent claims 2, 3, and 5-7 are obvious. In re Zurko, 158 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir 2001).

Similarly, the April 17, 2007, Office Action rejects dependent claim 4 as being obvious under 35 U.S.C. § 103(a) based upon the Gordon patent in view of the Florencio patent. In rejecting dependent claim 4, **the only explanation which the April 17th Office Action provides for combining the references appears in the following single, conclusory sentence** that begins at the bottom of the Office Action's page 4.

> Therefore, it would have been obvious to one of ordinary skill in the art, having the Gordon and Florencio references in front of him/her and the general knowledge of storage buffers within video image decoders, would have had no difficulty in providing the buffer memory within the decoder of Florencio for storage of and decoding of the compressed video bitstream of Gordon for the same well known buffering of data purposes as claimed.

Appellant respectively observes that, similar to the explanation for the rejections of dependent claims 2, 3, and 5-7 excerpted

above, the preceding sentence excerpted from the April 17th Office Action explaining the rejection of dependent claim 4 fails to identify any factual basis for combining the references. Consequently, the April 17th Office Action lacks concrete evidence that is required for properly concluding that dependent claim 4 is obvious. In re Zurko, supra.

Appellant respectfully submits that, in the language that begins at the bottom of page 8 of the June 7th "Decision on Appeal," the respective texts excerpted from the April 17th Office Action above explaining the rejections of dependent claims 2, 3, and 5-7 and of dependent claim 4 fail to provide any:

> indication from the Examiner as to how and in what manner the references would be combined to arrive at [a] specific [claimed] combination . . . .
>
> * * *
>
> This does not persuade us that one of ordinary skill in the art having the references before her or him, and using her or his own knowledge of the art, would have been put in possession of the claimed subject matter. In view of the above discussion, in order for us to sustain the Examiner's rejection, we would need to resort to impermissible speculation or unfounded assumptions or rationales to supply deficiencies in the factual basis of the rejection before us.

Based upon the preceding analysis, Appellant respectfully submits that dependent claims 2, 3, and 5-7 and dependent claim 4 traverse the respective rejections under 35 U.S.C. § 103(a) for obviousness appearing in the April 17th Office Action.

Estoppel Bars Claim Rejections Based On The Gordon Patent

Estoppel is a bar or impediment (obstruction) which precludes a person from asserting a fact or a right or prevents one from denying a fact. Such a hindrance is due to a person's actions, conduct, statements, admissions, failure to act . . . . Estoppel includes being barred by . . . , failure to take legal action until the other party is prejudiced by the delay (estoppel by laches) . . . . (Law.COM.) For example, regarding interference estoppel MPEP Eighth Edition Rev. 5, August 2006, § 2308.03, p. 2300-22 entitled "Estoppel Within the Office" states that there are two different types thereof.

> First, a losing party is barred on the merits from seeking a claim that would have been anticipated or rendered obvious by the subject matter of the lost count.
>
> * * *
>
> Second, **a losing party is procedurally barred from seeking from the examiner relief that could have been--but was not--sought in the interference**. (Emphasis supplied.)

This patent application's pending independent claim 1 was first rejected under 35 U.S.C. § 102(e) as being anticipated by the Gordon patent in an Office Action dated February 12, 2002. The February 12th Office Action rejected the application's other claims for obviousness under 37 C.F.R. § 103(a) based upon a combination of the Gordon patent with other references. Appellant's response

to the February 12th Office Action, received by the USPTO on July 19, 2002, included the Conover declaration which proves both:

1. that the Gordon patent lacks an enabling disclosure; and
2. a reduction to practice for the invention disclosed and claimed in the present patent application that precedes the filing date of the Gordon patent.

An October 11, 2002, Office Action substituted for all claim rejections appearing in the February 12th Office Action, i.e. all rejections based exclusively or in part upon the Gordon patent, new rejections of all pending claims for obviousness under 35 U.S.C. § 103(a) based upon combinations of references that omitted the Gordon patent. **The October 11, 2002, Office Action in paragraph no. 1 declares the prior rejection of this application's pending claims under 35 U.S.C. §§ 102(e) and 103(a) based exclusively or in part upon the Gordon patent to be "moot,"** but fails to state whether the rejection became moot because either or both:

1. the Gordon patent lacks an enabling disclosure; and/or
2. the Gordon patent and pending claims 1-7 encompass different inventions.

The October 11, 2002, Office Action claim rejections for obviousness based upon combinations of references that omitted the Gordon patent were ultimately reversed on appeal by the June 7, 2005, "Decision on Appeal."

Appellant respectfully submits that October 11, 2002, Office Action's declaring as "moot" all prior rejections based exclusively or in part upon the Gordon Patent combined with a failure to invoke the Gordon patent during more than three and one-half (3-½) years in two (2) successive Office Actions[16] and throughout Appellant's successful appeal of claim rejections appearing in those two (2) Office Actions:

a. constitutes res judicata on the issue of rejecting presently pending claims 1-7 based exclusively or in part upon the Gordon patent; and

b. at least, now, procedurally estops rejecting presently pending claims 1-7 based exclusively or in part upon the Gordon patent.

Conclusion

Appellant, for reasons set forth in greater detail above, respectfully submits that pending independent claim 1 traverses rejection under 35 U.S.C. § 102(e) based upon the Gordon patent for the following two reasons.

1. The Gordon patent lacks an enabling disclosure of the invention encompassed by pending independent claim 1.

---

[16] The October 11, 2002, and March 18, 2003, Office Actions.

2. Pending independent claim 1 and the Gordon patent claim different inventions.

Appellant further respectfully submits, for reasons set forth in greater detail above, that pending dependent claims 2-7 traverse rejection under 35 U.S.C. § 103(a) for obviousness based upon the Gordon patent in combination with another reference because conclusory rejections of those claims appearing in the April 17th Office Action fail to identify any facts which support or justify combining another reference with the Gordon patent.

Lastly, Appellant respectfully submits, for reasons set forth in greater detail above, that estoppel procedurally bars all claim rejections based upon the Gordon patent.

///

///

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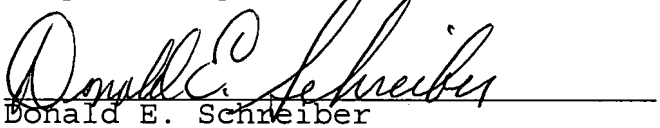
///

For the various reasons set forth above, the rejection of claims appearing in the April 17, 2007, Examiner's Action dated March 18, 2003, which has compelled filing this third Appeal Brief must be reversed, and this application, after pending in the USPTO now for almost nine (9) years and after having prevailed in a prior appeal of claim rejections, must pass to issue.

Respectfully submitted



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Attorney for Appellant

CLAIMS APPENDIX

1. A method for producing a compressed video bitstream that includes compressed video data for a plurality of frames from data that specifies a single still image, the method comprising the steps of:

fetching the data for the still image;

encoding the data for the single still image into data for an I frame;

storing the encoded I frame data; and

assembling the compressed video bitstream by appropriately combining data for:

at least a single copy of the stored I frame;

at least one null frame; and

various headers required for decodability of the compressed video bitstream;

whereby decoding of the compressed video bitstream produces frames of video which produce images that do not appear to pulse visually.

2. The method of claim 1 wherein:

the assembled compressed video bitstream is decodable in accordance with the MPEG-1 standard; and

the various headers assembled into the compressed video bitstream include:

a sequence_header beginning the compressed video bitstream;

at a beginning of group of pictures, a group_start_code;

for each encoded frame, a picture_start_code; and

a sequence_end_code ending the compressed video bitstream.

3. The method of claim 1 wherein:

the assembled compressed video bitstream is decodable in accordance with the MPEG-2 standard; and

the various headers assembled into the compressed video bitstream include:

a sequence_header beginning the compressed video bitstream;

for each encoded frame:

a picture_header; and

a picture_coding_extension; and

a sequence_end_code ending the compressed video bitstream.

4. The method of claim 1 wherein parameters used in encoding the data for the still image produce an amount of data

for the I frame that approaches, but remains less than, storage capacity of a buffer memory included in a decoder that stores the compressed video bitstream.

5. The method of claim 1 wherein null frames assembled into the compressed video bitstream also include bitstream stuffing whereby the compressed video bitstream is transmittable at a pre-established bitrate.

6. The method of claim 1 wherein the various headers assembled into the compressed video bitstream include:

a sequence_header beginning the compressed video bitstream;

at a beginning of group of pictures, a group_start_code;

for each encoded frame, a picture_start_code; and

a sequence_end_code ending the compressed video bitstream.

7. The method of claim 1 wherein the various headers assembled into the compressed video bitstream include:

a sequence_header beginning the compressed video bitstream;

for each encoded frame:

a picture_header; and

a picture_coding_extension; and

a sequence_end_code ending the compressed video bitstream.

EVIDENCE APPENDIX

United States Patent No. 6,324,217

Method and Apparatus for Producing an Information Stream Having Still Images

Evidence entered by Examiner on "Notice of References Cited" PTO-892 Form which accompanied a February 12, 2002, Office Action.

United States Patent No. 5,838,678

Method and Device for Preprocessing Streams of Encoded Data to Facilitate Decoding Streams Back-to Back

Evidence entered by Examiner on "Notice of References Cited" PTO-892 Form which accompanied a December 6, 2000, Office Action.

United States Patent No. 6,310,919

Method and Apparatus for Adaptively Scaling Motion Vector Information in an Information Stream Decoder

Evidence entered by Examiner on "Notice of References Cited" PTO-892 Form which accompanied a February 12, 2002, Office Action.

July 12, 2007, Declaration of Mark D. Conover
Including a Declaration Under 37 C.F.R. § 1.131

Evidence included in a Response to the February 12, 2002, Office Action which was received by the USPTO on July 19, 2002.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Mark D. Conover Docket no. 2134

Serial no : 09/168,644

Filed : October 8, 1998

For : ENCODING A STILL IMAGE INTO COMPRESSED VIDEO

Art Unit : 2613 Examiner: Richard J. Lee

DECLARATION OF MARK D. CONOVER
INCLUDING A DECLARATION UNDER 37 C.F.R. § 1.131

I, MARK D. CONOVER, declare that:

1. I am 52 years old and reside at 10721 Wunderlich Drive, Cupertino, California 95014.

2. In 1972, I received a Bachelors of Science degree in computer science from Carnegie Mellon University. Subsequently, in 1975, I received a Masters degree in computer science from Rensselaer Polytechnic Institute

3. I am a co-founder of Pixel Tools Corporation ("Pixel Tools"), the assignee of the patent application identified above, and presently hold the position of Chief Technical Officer in the corporation.

4. For at least the preceding 8 years I have been employed as a consultant computer programmer designing and implementing various products for various different companies that are based upon several of the various different Moving Picture Experts Group ("MPEG") standards.

5. I am the applicant identified above for this patent application.

6. I have reviewed the Examiner's Action that issued for this patent application dated February 12, 2002, particularly United States Patent no. 6,324,217 entitled "Method and Apparatus for Producing an Information Stream Having Still Images" which issued November 27, 2001, on an application filed July 8, 1998, by Donald F. Gordon ("the Gordon patent").

7. In reviewing the Gordon patent I find that it fails to disclose:

a. rate control which is essential for certain MPEG applications;

b. anything about the Gordon patent's NULL-P frame except that it has a zero motion vector component;"[1]

c. that the encoded I-Frame must be shorter than the buffer in the MPEG decoder; and

d. anything about visual pulsing of a decoded image.

8. As demonstrated by texts that appear at various places in my present patent application including the computer program texts that appear on pages 27 and 28, a NULL P frame. which when included in an elementary MPEG bit stream produces images which don't pulse visually after decoding, is far more complicated that merely having "a zero motion vector component" as disclosed in the Gordon patent.

---

[1] See the Gordon patent in col. 6 at line 14.

9. The Gordon patent, in col. 6 beginning at lines 15, expressly states that:

> the GOP bit budget is utilized by 14 P-frames (approximately 38 bytes each), additional overhead information (a relatively constant amount) and a single I-frame. Thus, the quantization parameters are calculated based upon a maximal bit budget utilization for encoding the I-frame.

The Gordon patent reiterates the preceding assertion in two successive paragraphs which begin in column 7 at line 26.

10. As disclosed in the pending patent application in a text that begins on page 14 at line 13 that:

> parameters supplied to the video encoder 38 are preferably chosen so the amount of data produced for the I frame 54 approaches, but remains less than, the storage capacity of the buffer memory included in the decoder.

11. MPEG-1 decoders typically include a buffer that stores 40,960 bytes of a compressed video data. MPEG-2 decoders typically include a buffer that stores 241,664 bytes of a compressed video data.

12. MPEG-1 compressed video data is typically transmitted at a frame rate of 30 frames/second, a bit-rate of 150 Kbytes/second and fourteen frames per GOP. Thus, an MPEG-1 GOP typically includes approximately 70 Kbytes of compressed video data.

13. MPEG-2 compressed video data is typically transmitted at a frame rate of 30 frames/second, a bit-rate of 750 Kbytes/second and fourteen frames per GOP. Thus, an MPEG-2 GOP typically includes approximately 350 Kbytes of compressed video data.

14. If a still image were encoded in accordance with the Gordon patent's disclosure quoted above in paragraph 9 rather than

in accordance with the disclosure of the present application quoted above in paragraph 10, then an I-frame encoded in accordance with the disclosure of the Gordon patent would overflow buffers respectively included in typical MPEG-1 and MPEG-2 decoders.

15. Typically, a decoder error occurs if compressed video data for an I-frame exceeds the storage capacity of the decoder's buffer.

16. Typically, a decoder error due to buffer overflow prevents presenting an image from compressed video data which overflowes the decoder's buffer.

17. Consequently, for typical transmission of MPEG compressed video data and for typical MPEG decoders, nothing will appear of a still image encoded in accordance with the disclosure of the Gordon patent.

18. Based upon my analysis, explained more specifically below, I conclude that decoding an elementary MPEG bit stream compiled by at least one embodiment disclosed the Gordon patent produces images that pulse visually.

19. The invention disclosed in my patent application produces an elementary MPEG bit stream by combining:

a. headers;

b. an I frame;

c. null P frame; and

d. stuffing.

20. Conversely, the Gordon patent discloses producing an elementary MPEG bit stream by repeating GOPs.

21. In addition to the omissions of the Gordon patent listed above and the differences between the invention disclosed and claimed in my patent application and the disclosure in the Gordon patent, I have identified the following erroneous statements in the disclosure of the Gordon patent.

a. In FIG. 3 and in a description thereof set forth in col. 5 at line 59-60, the Gordon patent incorrectly expressly discloses that a target bit rate is determined in step 310. This is erroneous because the target bit rate must be determined during system specification, i.e. when configuring both the MPEG encoder and the target MPEG decoder.

b. Decoding of an elementary MPEG bit stream generated by the predictive loop, which the Gordon patent depicts in elements 327,-329 of FIG. 3 and the text in col. 6 at lines 37-50, produces images that pulse visually for the reasons explained in the patent application identified above beginning on page 8 at line 22.

c. The Gordon patent states in col. 4 at lines 58-63 that:

> [i]n the case of an MPEG2 information stream, a NULL frame utilized by the inventor comprises a 38 byte data structure that informs the decoder to utilize all the macroblocks from the previous anchor frame and to do so without displacing the macroblocks (i.e., zero motion vectors).

MPEG-2 cannot escape past a slice, and a slice can not extend past a horizontal scan line. Therefore, the preceding statement is incorrect because the minimum

amount of data required to encode a single 720×480 frame in accordance with the MPEG-2 specification is 318 bytes, not 38 bytes as disclosed in the text quoted above from the Gordon patent.

d. From col. 6, line 62 through col. 7 line 4 the Gordon patent states that:

> data representative of the stored GOP is coupled to the output of GOP replicator 120 as video elementary stream CV. After replicating the stored GOP (step 340) the routine 300 optionally proceeds to step 345, where time stamps within the individual frames comprising the group of pictures are adjusted. For example, the presentation time stamp (PTS) and/or decode time stamp (DTS) associated with each of the frames may be adjusted to provide appropriate timing information to the resulting bitstream.

The preceding statement is incorrect because the presentation time stamp (PTS) and/or decode time stamp (DTS) are part of an MPEG system stream and are not part of an MPEG elementary stream.

22. During an interval beginning February 13, 1996, and ending April 24, 1998, I was employed as a consultant collaborating with Donald F. Gordon in connection with developing products to be marketed by Diva Systems Corporation ("Diva"), the assignee of the Gordon patent.

23. After I was no longer employed as a consultant by Diva, I developed the invention disclosed and claimed in the patent application identified above.

24. Attached hereto as Exhibit A is a printed document which reproduces a file that:

a. is recorded on a CD-ROM; and

b. bears a date stamp of June 4, 1998.

25. Exhibit A lists a computer program that I wrote on or about June 4, 1998, which implements the invention disclosed and claimed in the patent application identified above.

26. For example, a computer program text appearing in the lower half of page 3 of Exhibit A and continuing onto the second line on page 4 is substantially identical to a computer program text that appears on page 27 of the present patent application.

27. Similarly, a computer program text appearing in the lower half of page 4 of Exhibit A and continuing onto the second line on page 5 is substantially identical to a computer program text that appears on page 28 of the present patent application.

28. Exhibit A establishes that at least by June 4, 1998, I had:

a. thought of the invention disclosed and claimed in the patent application identified above; and

b. written a computer program which implemented the invention.

29. Since it is my custom after writing a computer program to test it by compiling the computer program on a computer which I use for such purposes that is located in the State of California, and then executing the compiled computer program on that same computer, Exhibit A further establishes that on or about June 4, 1998, following my usual practice, the computer program appearing in

Exhibit A would have been compiled and executed within the State of California.

30. I am unaware of any facts contrary to the facts and opinions contained in this Declaration.

31. I declare under penalty of perjury under the laws of the United States of America that all statements made herein of my own knowledge are true and correct, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any patent issuing on the subject application.

Mark D. Conover

Dated: 12 July, 2002

```
#define USEMPEG1

/*  Project encode
    SUBSYSTEM:      Encode Object
    FILE:           znullp.cpp
    AUTHOR:         Mark D Conover


    OVERVIEW
    ========
    Source file for implementation null b frame.
*/

/*****************************************************************************/
/*****************************************************************************/
/*
/*
/*
/* PROPRIETARY RIGHTS NOTICE
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/*
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/*
/*
/*****************************************************************************/
/*****************************************************************************/


#include "mpeg2.h"
#include "zencode.h"


/// table also in zputvlc.cpp
/* type definitions for variable length code table entries */

static VLCtable addrinctab[33]=
{
  {0x01,1},  {0x03,3},  {0x02,3},  {0x03,4},
  {0x02,4},  {0x03,5},  {0x02,5},  {0x07,7},
  {0x06,7},  {0x0b,8},  {0x0a,8},  {0x09,8},
  {0x08,8},  {0x07,8},  {0x06,8},  {0x17,10},
  {0x16,10}, {0x15,10}, {0x14,10}, {0x13,10},
  {0x12,10}, {0x23,11}, {0x22,11}, {0x21,11},
```

```
  {0x20,11}, {0x1f,11}, {0x1e,11}, {0x1d,11},
  {0x1c,11}, {0x1b,11}, {0x1a,11}, {0x19,11},
  {0x18,11}
};


extern void EncFrameStatsBits(char *text_out); // print out if
// Frame Stats Bits are opened


int MP2Enc::AddNullPFrames(int NumPFrames, int TempRef, int VBVDelay)
{
   ExC.NullPFramesInGop += NumPFrames; /// keep record for correct temp_ref

    TempRef +=  ExC.NullPFramesInGop;
if (tce.mpeg1)
   {
   PutMpeg1Frame(NumPFrames,TempRef,VBVDelay );
   }
else // mpeg2
   {
   if (tce.fieldpic)
      {
      PutMpeg2Field(NumPFrames,TempRef,VBVDelay);
      }
    else
      {
      PutMpeg2Frame(NumPFrames,TempRef,VBVDelay);
      }

   }


  alignbits();



   return 0;
}

int MP2Enc::AddNullBFrames(int NumBFrames, int TempRef, int VBVDelay)
{
int fr,iii;
//int TotalBits;
int TotalBlocks = (tce.width *tce.height)/(16*16);
int NumEscapes = (TotalBlocks - 2)/33;
int NumRemainingBlocks = TotalBlocks - NumEscapes*33 - 2;


double NullBytes = ExC.Floatbytecnt;
  alignbits();

 return 0;
}


int  MP2Enc::ReadLastFrame(char *,unsigned int )
{

/// addd rate control
return 0;
}
```

```
int  MP2Enc::WriteStoredFrame(int ,int ,int)
{

   fwrite (ExC.IBuffer,1,ExC.IPoint,tce.outfile);
   ExC.bytecnt += ExC.IPoint;
   ExC.Floatbytecnt += ExC.IPoint;

return 0;
}

void MP2Enc::CheckForStuffing(void)
{

calc_vbv_delay();  /// compute delay and buffer status
StuffBits();   // add bits if necessary

}

int MP2Enc::PutMpeg1Frame (int NumPFrames, int TempRef, int VBVDelay)
{
int fr,iii;
int TotalBlocks = (tce.width *tce.height)/(16*16);
int NumEscapes = (TotalBlocks - 2)/33;
int NumRemainingBlocks = TotalBlocks - NumEscapes*33 - 2;
double NullBytes = ExC.Floatbytecnt;
  alignbits();

for(fr = 0; fr < NumPFrames; fr+=1)
   {
      putbits (PICTURE_START_CODE,32); /// header
      putbits (TempRef+fr,10);
      putbits (P_TYPE,3);
      putbits (VBVDelay,16);
      putbits (0x0,1); //for full_pel_forward_code
      putbits (0x1,3); // forward_f_code           5
      putbits (0x0,7);   //// stuffing so start code aligns
      putbits (SLICE_MIN_START,32); // slice start
      putbits (0x1,5);         /// m quant
      putbits (0x0,1);        //  extra_slice_bat neglected by MPEG-1 example!!
      putbits (0x1,1);         // macroblock increment (1)

      putbits (0x1,3);         ///macroblock type   (hor_forward)
      putbits (0x1,1);         // horizontal change (0) from 0 to 1 in example)
      putbits (0x1,1);         // vertical  change (0) from 0 to 1

      for (iii = 0; iii < NumEscapes; iii+=1)
         putbits (0x8,11); ///escape     9  * 33 MacroBlocks

     putbits(addrinctab[NumRemainingBlocks].code,addrinctab[NumRemainingBlocks].len);

      putbits (0x1,3);   // type
      putbits (0x1,1);   // change from 0 to 1
      putbits (0x1,1);   // change from 0 to 1
      putbits (0x0,1);   // one less than spec42    ==5+   33+ = 264+2    -- 27
```

```
      putbits (0x0,32) ; // flushbytes


/// addd rate control
  alignbits();

 NullBytes = ExC.Floatbytecnt - NullBytes;
   ExC.bytecnt += (int) NullBytes;
   ExC.Floatbytecnt += NullBytes;

   char text_out[256];
   sprintf (text_out,"   Mpeg1 Frame Null P Frame Bytes Added:%d TempRef::%d\r\n",
   (int) NullBytes, TempRef+fr);
    EncFrameStatsBits(text_out);

    }   /// each frame loop

}


int MP2Enc::PutMpeg2Field (int NumPFrames, int TempRef, int VBVDelay)
{
int fr,iii;
int TotalBlocks = (tce.width *tce.height)/(16*16*2); //*2 for each field
int NumEscapes = (TotalBlocks - 2)/33;
int NumRemainingBlocks = TotalBlocks - NumEscapes*33 - 2;
double NullBytes = ExC.Floatbytecnt;
  alignbits();


for(fr = 0; fr < NumPFrames; fr+=1)
   {

/// Field Top

      putbits (PICTURE_START_CODE,32); /// header
      putbits (TempRef+fr,10);
      putbits (P_TYPE,3);
      putbits (VBVDelay,16);
      putbits (0x0,1); //for full_pel_forward_code
// Mpeg1      putbits (0x1,3); // forward_f_code             5
      putbits (0x7,3); // forward_f_code   //MPeg2          5

//   MPEG1   putbits (0x0,?);   //// stuffing so start code aligns
      putbits (0x0,7);   //// stuffing so start code aligns
      AddNullPictureExtension(1);  // top field
      putbits (SLICE_MIN_START,32); // slice start
      putbits (0x1,5);          /// m quant
      putbits (0x0,1);          //  extra_slice_bat neglected by MPEG-1 example!!
      putbits (0x1,1);          // macroblock increment (1)
                  //     macroblock_modes()
      putbits (0x1,3);          ///macroblock type   (hor_forward) macroblock_motion_forward (Mpeg2)
 // M1    putbits (0x1,1);         // horizontal change (0) from 0 to 1 in example)
// M1    putbits (0x1,1);         // vertical   change (0) from 0 to 1


      putbits (0x1,2);          // field motion
      putbits (0x1,1);          // motion_vertical_field_select[]
      putbits (0x1,1);          // Motion vector of 0
      putbits (0x1,1);          // Second Motion vector of 0
///       putbits (0x1,1);         // Marker bit not in Field Pics!
                                          /// 15 bits since MIN_START

// now add macro_block excapes
```

```
      for (iii = 0; iii < NumEscapes; iii+=1)
         putbits (0x8,11); ///escape     9  * 33 MacroBlocks


//     MB increment for last macro-block
     putbits(addrinctab[NumRemainingBlocks].code,addrinctab[NumRemainingBlocks].len);

      putbits (0x1,3);    // type

// m1      putbits (0x1,1);   // change from 0 to 1
 // m1      putbits (0x1,1);   // change from 0 to 1

      putbits (0x1,2);          // field motion
      putbits (0x1,1);          // motion_vertical_field_select[]
      putbits (0x1,1);          // Motion vector of 0
      putbits (0x1,1);          // Second Motion vector of 0
///       putbits (0x1,1);          // Marker bit not in Field Pics!


//      putbits (0x0,1);   // one less than spec42    ==5+   33+ = 264+2     -- 27


      putbits (0x0,32) ; // flushbytes out of pipe


/// addd rate control
  alignbits();  // add bytes to align to boundaries


/// Field Bottom

      putbits (PICTURE_START_CODE,32); /// header
      putbits (TempRef,10);
      putbits (P_TYPE,3);
      putbits (VBVDelay,16);
      putbits (0x0,1); //for full_pel_forward_code
// Mpeg1      putbits (0x1,3); // forward_f_code             5
      putbits (0x7,3); // forward_f_code   //MPeg2          5

//   MPEG1   putbits (0x0,?);   //// stuffing so start code aligns
      putbits (0x0,7);   //// stuffing so start code aligns
      AddNullPictureExtension(2);  // bottom field

      putbits (SLICE_MIN_START,32); // slice start
      putbits (0x1,5);          /// m quant
      putbits (0x0,1);          //  extra_slice_bat neglected by MPEG-1 example!!
      putbits (0x1,1);          // macroblock increment (1)
                  //     macroblock_modes()
      putbits (0x1,3);          ///macroblock type    (hor_forward) macroblock_motion_forward (Mpeg2)
 // M1    putbits (0x1,1);          // horizontal change (0) from 0 to 1 in example)
//  M1    putbits (0x1,1);          // vertical   change (0) from 0 to 1


      putbits (0x1,2);          // field motion
      putbits (0x1,1);          // motion_vertical_field_select[]
      putbits (0x1,1);          // Motion vector of 0
      putbits (0x1,1);          // Second Motion vector of 0
///       putbits (0x1,1);          // Marker bit not in Field Pics!
                                          /// 15 bits since MIN_START

// now add macro_block excapes
      for (iii = 0; iii < NumEscapes; iii+=1)
         putbits (0x8,11); ///escape     9  * 33 MacroBlocks
```

```
//     MB increment for last macro-block
      putbits(addrinctab[NumRemainingBlocks].code,addrinctab[NumRemainingBlocks].len);

       putbits (0x1,3);    // type

// m1       putbits (0x1,1);    // change from 0 to 1
 // m1       putbits (0x1,1);    // change from 0 to 1

       putbits (0x1,2);          // field motion
       putbits (0x1,1);          // motion_vertical_field_select[]
       putbits (0x1,1);          // Motion vector of 0
       putbits (0x1,1);          // Second Motion vector of 0
///       putbits (0x1,1);          // Marker bit not in Field Pics!


//      putbits (0x0,1);    // one less than spec42     ==5+   33+ = 264+2     -- 27


       putbits (0x0,32) ; // flushbytes out of pipe


/// addd rate control
  alignbits();  // add bytes to align to boundaries



 NullBytes = ExC.Floatbytecnt - NullBytes;
   ExC.bytecnt += (int) NullBytes;
   ExC.Floatbytecnt += NullBytes;
  char text_out[256];
   sprintf (text_out,"   Mpeg2 Field Null P Frame Bytes Added:%d TempRef::%d\r\n",
   (int) NullBytes, TempRef+fr);
    EncFrameStatsBits(text_out);

     }   /// each frame loop


}


void MP2Enc::AddNullPictureExtension(int Null_picture_structure)
// picture_structure = 1 top field; 2 bottom field; 3 frame picture
{
  alignbits();
  putbits(EXT_START_CODE,32); /* extension_start_code */
  putbits(CODING_ID,4); /* extension_start_code_identifier */
  putbits(tce.forw_hor_f_code,4); /* forward_horizontal_f_code */
  putbits(tce.forw_vert_f_code,4); /* forward_vertical_f_code */
  putbits(tce.back_hor_f_code,4); /* backward_horizontal_f_code */
  putbits(tce.back_vert_f_code,4); /* backward_vertical_f_code */
  putbits(tce.dc_prec,2); /* intra_dc_precision */
  putbits(Null_picture_structure,2); /* picture_structure */
  putbits((tce.pict_struct==FRAME_PICTURE)?tce.topfirst:0,1); /* top_field_first */
  putbits(tce.frame_pred_dct,1); /* frame_pred_frame_dct */
  putbits(0,1); /* concealment_motion_vectors  -- currently not implemented */
  putbits(tce.q_scale_type,1); /* q_scale_type */
//  putbits(tce.intravlc,1); /* intra_vlc_format */
  putbits(0,1); /* force it to 0 */
  putbits(tce.altscan,1); /* alternate_scan */
  putbits(tce.repeatfirst,1); /* repeat_first_field */
  putbits(tce.prog_frame,1); /* chroma_420_type */
  putbits(tce.prog_frame,1); /* progressive_frame */
  putbits(0,1); /* composite_display_flag */
}
```

```
#ifndef USEMPEG1
/// try wiht mpeg2 pixture extensions
int MP2Enc::PutMpeg2Frame (int NumPFrames, int TempRef, int VBVDelay)
{
int fr,iii;
int TotalBlocks = (tce.width *tce.height)/(16*16*2); //*2 for each field
int NumEscapes = (TotalBlocks - 2)/33;
int NumRemainingBlocks = TotalBlocks - NumEscapes*33 - 2;
double NullBytes = ExC.Floatbytecnt;
  alignbits();


for(fr = 0; fr < NumPFrames; fr+=1)
   {
      putbits (PICTURE_START_CODE,32); /// header
      putbits (TempRef+fr,10);
      putbits (P_TYPE,3);
      putbits (VBVDelay,16);
      putbits (0x0,1); //for full_pel_forward_code
// Mpeg1      putbits (0x1,3); // forward_f_code             5
      putbits (0x7,3); // forward_f_code   //MPeg2          5

//   MPEG1   putbits (0x0,?);   //// stuffing so start code aligns
      putbits (0x0,7);   //// stuffing so start code aligns
      AddNullPictureExtension(3);  // frame picture
      putbits (SLICE_MIN_START,32); // slice start
      putbits (0x1,5);          /// m quant
      putbits (0x0,1);          //  extra_slice_bat neglected by MPEG-1 example!!
      putbits (0x1,1);          // macroblock increment (1)
                //     macroblock_modes()
      putbits (0x1,3);          ///macroblock type   (hor_forward) macroblock_motion_forward (Mpeg2)
 // M1    putbits (0x1,1);        // horizontal change (0) from 0 to 1 in example)
//  M1    putbits (0x1,1);        // vertical   change (0) from 0 to 1


      putbits (0x2,2);          // frame motion
      putbits (0x1,1);          // motion_vertical_field_select[]
      putbits (0x1,1);          // Motion vector of 0
      putbits (0x1,1);          // Second Motion vector of 0

      putbits (0x1,1);          // motion_vertical_field_select[] /// 4 vectores for frame
      putbits (0x1,1);          // Motion vector of 0
      putbits (0x1,1);          // Second Motion vector of 0


///       putbits (0x1,1);        // Marker bit not in Field Pics!
                                              /// 15 bits since MIN_START

// now add macro_block excapes
      for (iii = 0; iii < NumEscapes; iii+=1)
         putbits (0x8,11); ///escape     9  * 33 MacroBlocks


//     MB increment for last macro-block
     putbits(addrinctab[NumRemainingBlocks].code,addrinctab[NumRemainingBlocks].len);

      putbits (0x1,3);   // type

// m1      putbits (0x1,1);   // change from 0 to 1
 // m1      putbits (0x1,1);   // change from 0 to 1

     putbits (0x2,2);         // frame motion
```

```
      putbits (0x1,1);         // motion_vertical_field_select[]
      putbits (0x1,1);         // Motion vector of 0
      putbits (0x1,1);         // Second Motion vector of 0

      putbits (0x1,1);         // motion_vertical_field_select[] /// 4 vectores for frame
      putbits (0x1,1);         // Motion vector of 0
      putbits (0x1,1);         // Second Motion vector of 0

///       putbits (0x1,1);        // Marker bit not in Field Pics!


//      putbits (0x0,1);   // one less than spec42    ==5+   33+ = 264+2    -- 27


      putbits (0x0,32) ; // flushbytes out of pipe

/// addd rate control
  alignbits();  // add bytes to align to boundaries



 NullBytes = ExC.Floatbytecnt - NullBytes;
   ExC.bytecnt += (int) NullBytes;
   ExC.Floatbytecnt += NullBytes;

   char text_out[400];
   sprintf (text_out,"   Mpeg2 Field Null P Frame Bytes Added:%d TempRef::%d\r\n",
   (int) NullBytes, TempRef+fr);
    EncFrameStatsBits(text_out);


    }   /// each frame loop
}

#else
// works like mpeg-1
int MP2Enc::PutMpeg2Frame (int NumPFrames, int TempRef, int VBVDelay)
{
int fr,iii;
int TotalBlocks = (tce.width *tce.height)/(16*16);
int NumEscapes = (TotalBlocks - 2)/33;
int NumRemainingBlocks = TotalBlocks - NumEscapes*33 - 2;
double NullBytes = ExC.Floatbytecnt;
  alignbits();

for(fr = 0; fr < NumPFrames; fr+=1)
   {
      putbits (PICTURE_START_CODE,32); /// header
      putbits (TempRef,10);
      putbits (P_TYPE,3);
      putbits (VBVDelay,16);
      putbits (0x0,1); //for full_pel_forward_code
      putbits (0x1,3); // forward_f_code             5
      putbits (0x0,7);   //// stuffing so start code aligns
      putbits (SLICE_MIN_START,32); // slice start
      putbits (0x1,5);          /// m quant
      putbits (0x0,1);        //  extra_slice_bat neglected by MPEG-1 example!!
      putbits (0x1,1);         // macroblock increment (1)
      putbits (0x1,3);         ///macroblock type    (hor_forward)
      putbits (0x1,1);         // horizontal change (0) from 0 to 1 in example)
      putbits (0x1,1);         // vertical   change (0) from 0 to 1
```

```
      for (iii = 0; iii < NumEscapes; iii+=1)
         putbits (0x8,11); ///escape     9  * 33 MacroBlocks

     putbits(addrinctab[NumRemainingBlocks].code,addrinctab[NumRemainingBlocks].len);

      putbits (0x1,3);    // type
      putbits (0x1,1);    // change from 0 to 1
      putbits (0x1,1);    // change from 0 to 1
      putbits (0x0,1);    // one less than spec42    ==5+   33+ = 264+2    -- 27
      putbits (0x0,32) ; // flushbytes


/// addd rate control
  alignbits();

 NullBytes = ExC.Floatbytecnt - NullBytes;
   ExC.bytecnt += (int) NullBytes;
   ExC.Floatbytecnt += NullBytes;
      char text_out[256];
   sprintf (text_out,"   Mpeg2 Frame Null P Frame Bytes Added:%d TempRef::%d\r\n",
   (int) NullBytes, TempRef+fr);
    EncFrameStatsBits(text_out);

     }   /// each frame loop

}  //end NullPFrame



#endif // USEMPEG1
```

An Office Action for the
Present Patent Application
Mailed February 12, 2002

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/168,644	10/08/1998	MARK D. CONOVER	2134	2742

7590 02/12/2002

DONALD E SCHREIBER
POST OFFICE BOX 64150
SUNNYVALE, CA 940884150

EXAMINER	
LEE, RICHARD J	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 02/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/168,644	Applicant(s) Conover
	Examiner Richard Lee	Art Unit 2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Dec 7, 2001*.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-7* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
18) ☐ Interview Summary (PTO-413) Paper No(s). _____
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other:

1. In view of the Brief filed December 7, 2001 and the newly discovered Gordon (6,324,217) and Florencio (6,310,919) references, the finality of the last Office Action is hereby withdrawn. A non-final Office Action follows. The Examiner apologizes for any inconvenience that this may have caused.

2. Claim 4 is objected to because of the following informalities: At claim 4, line 1, "employed" should be changed to "used" for clarity. Appropriate correction is required.

3. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The particular claim to the "MPEG-1" and "MPEG-2" recommendations as shown in claims 2 and 3, respectively, are indefinite because there are many versions of the MPEG-1 and MPEG-2 recommendations and the recommends are continuously updated. The scope of the claim limitations cannot change over time, and unless the specification states a specific MPEG-1 and MPEG-2 version and date or a copy of the MPEG-1 and MPEG-2 recommendations are provided, the claims are indefinite. The recommendations are constantly changing, even up to the filing date of the application. Basically, the time frame between when the invention was reduced to practice till the time the application is filed, for example, there could be various versions of the recommendations. And unless the versions and dates of the recommendations are provided, the metes and bounds of the claimed limitations are not clearly set forth, and thus renders the claims indefinite.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Gordon (6,324,217).

Gordon discloses a method and apparatus for producing an information stream having still images as shown in Figures 1 and 3, and the same method for producing a compressed video bitstream that includes compressed video data for a plurality of frames that specifies a single still image as claimed in claim 1, comprising the same fetching that data for the still image (see input to 110 of Figure 1); encoding (i.e., 110 of Figure 1) the data for the single still image data into data for an intra frame; storing (i.e., 121 of Figure 1) the encoded I frame data; assembling the compressed video bitstream by appropriately combining data for at least a single copy of the stored I frame (i.e., from 120 of Figure 1, see column 3, lines 36-47, column 3, line 61 to column 5), at least one null frame (i.e., from 120 of Figure 1, see column 3, lines 36-47, column 3, line 61 to column 5), and various headers required for decodability of the compressed video bitstream (see column 4, lines 5-43); and whereby decoding of the compressed video bitstream produces frames of video which produce images that do not appear to pulse visually (see column 7, lines 26-49).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2, 3, and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon as applied to claim 1 in the above paragraph (5), and further in view of Davis et al of record (5,838,678).

Gordon discloses substantially the same method for producing a compressed video bitstream as above, further wherein the assembled compressed video bitstream is decodable in accordance with the MPEG-1 and MPEG-2 standards (see column 3).

Gordon does not particularly disclose though the followings:

(a) wherein null frames assembled into the compressed video bitstream also include bitstream stuffing whereby the compressed video bitstream is transmittable at a pre-established bitrate as claimed in claim 5;

(b) the various headers assembled into the compressed video bitstream include a sequence header beginning the compressed video bitstream, at a beginning of group of pictures, a group start code, for each encoded frame, a picture start code, and a sequence end code ending the compressed video bitstream as claimed in claims 2 and 6; and

(c) the various headers assembled into the compressed video bitstream include a sequence header beginning the compressed video bitstream; for each encoded frame a picture header, and a

picture coding extension; and a sequence end code ending the compressed video bitstream as claimed in claims 3 and 7.

Regarding (a) to (c), Davis et al discloses a method and device for preprocessing streams of encoded data to facilitate decoding streams back to back as shown in Figures 2, 3A, 3B, 5, and 6, and teaches the conventional assembling of the compressed video bitstream by appropriately combining data for headers such as sequence header, group start code, picture start code, sequence end code, picture header, and picture coding extension (see column 3, line 41 to column 4, line 16), as well as bitstream stuffings whereby the compressed video bitstream may be transmitted at a pre-established bitrate (see Figure 2). Therefore, it would have been obvious to one of ordinary skill in the art, having the Gordon and Davis et al references in front of him/her, would have had no difficulty in providing the required header data for the MPEG encoding/decoding as well as including the bitstream stuffings in the compressed video bitstream as shown in Davis et al for the compressed video data within encoder and decoder of Gordon for the same well known video bit processing and standard compliance purposes as claimed.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon as applied to claim 1 in the above paragraph (5), and further in view of Florencio (6,310,919).

Gordon discloses substantially the same method for producing a compressed video bitstream as above, but does not particularly disclose wherein parameters employed in encoding the data for the still image produce an amount of data for the I frame that approaches, but remains less than, storage capacity of a buffer memory included in a decoder that stores the compressed

video bitstream as claimed in claim 4. The particular storage of compressed video bitstreams within a decoder is however old and well recognized in the art, as exemplified by Florencio (see 111 of Figure 1 and column 5, lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art, having the Gordon and Florencio references in front of him/her and the general knowledge of storage buffers within video image decoders, would have had no difficulty in providing the buffer memory within the decoder of Florencio for storage of and decoding of the compressed video bitstream of Gordon for the same well known buffer of data purposes as claimed.

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.

RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

1/31/02

Notice of References Cited	Applicant/Patent: Conover	Application/Control No.: 09/168,644	
	Examiner: Richard Lee	Art Unit: 2613	Page 1 of 1

U.S. PATENT DOCUMENTS

		Document Number Country Code-Number-Kind Code	Date MM-YYYY[1]	Name	Classification[2]	
	A	6,324,217	11/2001	Gordon	375	240.16
	B	6,310,919	10/2001	Florencio	375	240.16
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

		Document Number Country Code-Number-Kind Code	Date MM-YYYY[1]	Country	Name	Classification[2]	
	N						
	O						
	P						
	Q						
	R						
	S						
	T						

NON-PATENT DOCUMENTS

		Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages
	U	
	V	
	W	
	X	

* A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a). [1] Dates in MM-YYYY format are publication dates. [2] Classifications may be U.S. or foreign.

EVIDENCE APPENDIX

An Office Action for the
Present Patent Application
Mailed February 12, 2002

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/168,644	10/08/1998	MARK D. CONOVER	2134	2742

7590 10/11/2002

DONALD E SCHREIBER
POST OFFICE BOX 64150
SUNNYVALE, CA 940884150

EXAMINER
LEE, RICHARD J

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 10/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/168,644	Applicant(s) Conover
	Examiner Richard Lee	Art Unit 2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Jul 19, 2002*.

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-7* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. The Examiner wants to point out that the applicant's arguments from the amendment filed July 19, 2002 have been noted and considered, but are deemed moot in view of the following new grounds of rejections. The Declaration of Mark D. Conover filed July 19, 2002 is also acknowledged.

2. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the same reasons as set forth in paragraph (3) of the last Office Action (see Paper no. 12).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowater et al of record (5,404,446) in view of Davis et al of record (5,838,678).

Bowater et al discloses a dual buffer video display system for the display of asynchronous irregular frame rate video data as shown in Figures 1 and 2, and substantially the same method for producing a compressed video bitstream that includes compressed video data for a plurality of frames that specifies a single still image (see Figures 1 and 2, and column 3, lines 19-34, column 4, lines 42-68) as claimed in claim 1, comprising substantially the same fetching the data for the

still image (see column 3, lines 19-34, column 4, lines 42-68); encoding (see column 4, lines 42-68) the data for the single still image data; storing (i.e., within 4 of Figure 1) the encoded frame data; assembling the compressed video bitstream by appropriately combining data for at least a single copy of the stored frame (i.e., from 4 of Figure 1, see column 3, lines 19-34, column 4, lines 42-68), at least one null frame (see column 2, lines 48-62, column 4, lines 11-41, column 6, line 59 to column 7); and whereby decoding of the compressed video bitstream produces frames of video which produce images that do not appear to pulse visually (i.e., the AVK and circular buffer are used to compensate for the variable arrival rate of the video frames, thereby eliminating viewing distortion and providing images that do not appear to pulse visually, see column 3, line 19 to column 4, line 41).

Bowater does not particularly disclose, though, the followings:

(a) encoding the data for the single still image into data for an intra frame, storing the encoded I frame data, and wherein the assembling the compressed video bitstream combines at least a single copy of the stored I frame as claimed in claim 1;

(b) wherein null frames assembled into the compressed video bitstream also include bitstream stuffing whereby the compressed video bitstream is transmittable at a pre-established bitrate as claimed in claim 5;

(c) the various headers are required for decodabliltiy of the compressed video bitstream, the various headers assembled into the compressed video bitstream include a sequence header beginning the compressed video bitstream, at a beginning of group of pictures, a group start code,

for each encoded frame, a picture start code, and a sequence end code ending the compressed video bitstream as claimed in claims 1, 2 and 6; and

(d) the various headers assembled into the compressed video bitstream include a sequence header beginning the compressed video bitstream; for each encoded frame a picture header, and a picture coding extension; and a sequence end code ending the compressed video bitstream as claimed in claims 3 and 7.

Regarding (a), it is noted that Bowater et al does teach the particular spatial and temporal compression of video signals (see column 4, lines 42-68), and obviously making reference to the well known MPEG video compressions which include the processing of I, P, and B frames. In any event, Davis et al discloses a method and device for preprocessing streams of encoded data to facilitate decoding streams back to back as shown in Figures 2, 3A, 3B, 5, and 6, and teaches the conventional MPEG video compression processings involving I, P, and B frames (see figure 16). Therefore, it would have been obvious to one of ordinary skill in the art, having the Bowater et al and Davis et al references in front of him/her and the general knowledge of intra frame processings within the MPEG video compression standard, would have had no difficulty in providing the intra frame processings as taught by Davis et al within the encoder and decoder of Bowater et al thereby providing the encoding of the data for the single still image into data for an intra frame, storing the encoded I frame data, and wherein the assembling the compressed video bitstream combines at least a single copy of the stored I frame if such intra frame processing were

not already within the encoding/decoding of Bowater et al for the same well known purposes as claimed.

Regarding (b) to (d), Davis et al teaches the particular use of headers for decodablitiy of compressed video bitstreams (see column 4, lines 48-62) and the conventional assembling of the compressed video bitstream by appropriately combining data for headers such as sequence header, group start code, picture start code, sequence end code, picture header, and picture coding extension (see column 3, line 41 to column 4, line 16), as well as bitstream stuffings whereby the compressed video bitstream may be transmitted at a pre-established bitrate (see Figure 2). Therefore, it would have been obvious to one of ordinary skill in the art, having the Bowater et al and Davis et al references in front of him/her, would have had no difficulty in providing the required header data for the MPEG encoding/decoding as well as including the bitstream stuffings in the compressed video bitstream as shown in Davis et al for the compressed video data within encoder and decoder of Bowater for the same well known video bit processing and standard compliance purposes as claimed.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowater et al as applied to claims 1-3 and 5-7 in the above paragraph (4), and further in view of Florencio of record (6,310,919).

The combination of Bowater et al and Davis et al discloses substantially the same method for producing a compressed video bitstream as above, but does not particularly disclose wherein parameters used in encoding the data for the still image produce an amount of data for the I frame

that approaches, but remains less than, storage capacity of a buffer memory included in a decoder that stores the compressed video bitstream as claimed in claim 4. The particular storage of compressed video bitstreams within a decoder is however old and well recognized in the art, as exemplified by Florencio (see 111 of Figure 1 and column 5, lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art, having the Bowater et al, Davis et al, and Florencio references in front of him/her and the general knowledge of storage buffers within video image decoders, would have had no difficulty in providing the buffer memory within the decoder of Florencio for storage of and decoding of the compressed video bitstream of Bowater et al for the same well known buffer of data purposes as claimed.

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.

RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

10/9/02

An Office Action for the
Present Patent Application
Mailed April 17, 2007

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/168,644	10/08/1998	MARK D. CONOVER	2134	2742

7590 04/17/2007

Donald E Schreiber
Donald E Schreiber A Professional Corporation
Post Office Box 2926
Kings Beach, CA 96143-2926

EXAMINER	
RAO, ANAND SHASHIKANT	
ART UNIT	PAPER NUMBER
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

UNITED STATES DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER
	20070412

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Andy S. Rao
Primary Examiner
Art Unit: 2621

EVIDENCE APPENDIX

dn

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/168,644	10/08/1998	MARK D. CONOVER	2134	2742

7590 04/04/2006

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EXAMINER	
LEE, RICHARD J	

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/168,644	CONOVER, MARK D.	
	Examiner	Art Unit	
	Richard Lee	2621	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

EVIDENCE APPENDIX

April 17, 2007
Office Action

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Gordon of record (6,324,217).

Gordon discloses a method and apparatus for producing an information stream having still images as shown in Figures 1 and 3, and the same method for producing a compressed video bitstream that includes compressed video data for a plurality of frames that specifies a single still image as claimed in claim 1, comprising the same fetching that data for the still image (see input to 110 of Figure 1); encoding (i.e., 110 of Figure 1) the data for the single still image data into data for an I frame; storing (i.e., 111 or 121 of Figure 1) the encoded I frame data; assembling the compressed video bitstream by appropriately combining data for at least a single copy of the stored I frame (i.e., from 120 of Figure 1, see column 3, lines 36-47, column 3, line 61 to column 5), at least one null frame (i.e., from 120 of Figure 1, see column 3, lines 36-47, column 3, line 61 to column 5), and various headers required for decodability of the compressed video bitstream (see column 4, lines 5-43); and whereby decoding of the compressed video bitstream produces frames of video which produce images that do not appear to pulse visually (see column 3, lines 48-54, column 7, lines 26-58).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2, 3, and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon as applied to claim 1 in the above paragraph (2), and further in view of Davis et al of record (5,838,678).

Gordon discloses substantially the same method for producing a compressed video bitstream as above, further wherein the assembled compressed video bitstream is decodable in accordance with the MPEG-1 and MPEG-2 standards (see column 3).

Gordon does not particularly disclose though the followings:

(a) wherein null frames assembled into the compressed video bitstream also include bitstream stuffing whereby the compressed video bitstream is transmittable at a pre-established bitrate as claimed in claim 5;

(b) the various headers assembled into the compressed video bitstream include a sequence header beginning the compressed video bitstream, at a beginning of group of pictures, a group start code, for each encoded frame, a picture start code, and a sequence end code ending the compressed video bitstream as claimed in claims 2 and 6; and

(c) the various headers assembled into the compressed video bitstream include a sequence header beginning the compressed video bitstream; for each encoded frame a picture header, and a picture coding extension; and a sequence end code ending the compressed video bitstream as claimed in claims 3 and 7.

Regarding (a) to (c), Davis et al discloses a method and device for preprocessing streams of encoded data to facilitate decoding streams back to back as shown in Figures 2, 3A, 3B, 5, and 6, and teaches the conventional assembling of the compressed video bitstream by appropriately combining data for headers such as sequence header, group start code, picture start code, sequence end code, picture header, and picture coding extension (see column 3, line 41 to column 4, line 16), as well as bitstream stuffings whereby the compressed video bitstream may be transmitted at a pre-established bitrate (see "stuffing bytes" in Figure 2). Therefore, it would have been obvious to one of ordinary skill in the art, having the Gordon and Davis et al references in front of him/her, would have had no difficulty in providing the required header data for the MPEG encoding/decoding as well as including the bitstream stuffings in the compressed video bitstream as shown in Davis et al for the compressed video data within encoder and decoder of Gordon for the same well known video bit processing and standard compliance purposes as claimed.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon as applied to claim 1 in the above paragraph (2), and further in view of Florencio of record (6,310,919).

Gordon discloses substantially the same method for producing a compressed video bitstream as above, but does not particularly disclose wherein parameters used in encoding the data for the still image produce an amount of data for the I frame that approaches, but remains less than, storage capacity of a buffer memory included in a decoder that stores the compressed video bitstream as claimed in claim 4. The particular storage of compressed video bitstreams within a decoder is however old and well recognized in the art, as exemplified by Florencio (see 111 of Figure 1 and column 5, lines 1-12). Therefore, it would have been obvious to one of

ordinary skill in the art, having the Gordon and Florencio references in front of him/her and the general knowledge of storage buffers within video image decoders, would have had no difficulty in providing the buffer memory within the decoder of Florencio for storage of and decoding of the compressed video bitstream of Gordon for the same well known buffering of data purposes as claimed.

6. It is to be noted that the applicant has not provided any sufficient showing of evidence under Rule 41.202 in order to provisionally remove the section 102(e) rejection for purposes of interference.

The applicant's introductory remarks at pages 2-5 of the amendment filed February 2, 2006 have been noted.

The applicant argued at pages 7-14 of the amendment filed February 2, 2006 concerning the description of the two embodiments of the Gordon patent, and specifically that a rejection based on 35 U.S.C. 102(e) can be overcome by (A) persuasively arguing that the claims are patentably distinguishable from the prior art; and (D) filing an affidavit or declaration under 37 C.F.R. 1.131 showing prior invention as defined in 37 C.F.R. 41.203(a) and MPEP 706.02(b), and 37 CFR 1.131 affidavits or declarations may be used to antedate a reference that qualifies as prior art under 35 USC 102(e), where the reference has a prior art data under 35 USC 102(e) prior to applicant's effective filing date, and shows but does not claim the same patentable invention. The applicant's attention is directed to MPEP 706.02(b), section (D), which states that "When the claims of the reference U.S. patent or U.S. patent application publication are directed to the same invention or are obvious invariants, an affidavit or declaration under 37 CFR 1.131 is not an acceptable method of overcoming the rejection". Contrary to applicant's

contention, the present 35 U.S.C. 102 (e) therefore can not be overcome by an affidavit or declaration under 37 CFR 1.131 for reasons as set forth in MPEP 706.02(b) and since the Gordon patent is directed to the same patentable/claimed invention.

The applicant argued at pages 14-23 of the amendment filed February 2, 2006 concerning in general the traversal of the rejection under 35 USC 102(e) based upon the Gordon patent because the Gordon patent claims differ patentably from the subject matter encompassed by pending claim 1 and the Gordon patent lacks an enabling disclosure of pre-defined data structure NULL P-frames, and specifically that "the Gordon patent's independent claims, i.e. claims 1, 10 and 13, are all limited to the second, less preferred embodiment of the invention described in col. 4, line 66 – col. 5, line 6 ... The present application discloses only pre-defined data structure NULL P-frames as contrasted with the Gordon patent's claimed second , less preferred embodiment of the invention ... Applicant respectfully submits that controlling legal authority bars rejecting pending independent claim 1 under 35 USC 102(e) based upon the Gordon patent because the reference lacks an enabling disclosure of pre-defined data structure NULL P-frames ...". The Examiner respectfully disagrees. Contrary to the applicant's contention that the predefined data structure NULL P-frames as disclosed in the present application is contrasted with Gordon patent's claimed second embodiment which describes using a plurality of forward predictive coded frames (P-frames), the Examiner sees no difference between the NULL frames of the present application and the NULL frames of the Gordon patent (see column 4, lines 53-65). Also, contrary to the applicant's contention, the Gordon patent clearly claims the same patentable invention. And regarding the lack of an enabling disclosure by Gordon as argued by the applicant, the Examiner wants to point out that MPEP 2121 states that "When the reference is

relied on expressly anticipates or makes obvious all of the elements of the claimed invention, the reference is presumed to be operable", and "The level of disclosure required within a reference to make it an "enabling disclosure" is the same no matter what type of prior art is at issue. It does not matter whether the prior art reference is a U.S. patent, foreign patent, a printed publication or other". Therefore, it is submitted that the Gordon patent contains an enabled disclosure and anticipates the claimed invention.

The applicant argued at page 23 of the amendment filed February 2, 2006 concerning in general that " ... the prior abandonment of the rejection of independent claim 1 under 35 USC 102(e) based upon the Gordon patent for more than three and one-half years in both the October 11, 2002, in the March 18, 2003, Office Actions and during Applicant's successful appeal of claim rejections appearing in those two Office estops rejecting independent claim 1 on that basis now ...". The Examiner however has reviewed the MPEP and was not been able to find such estoppel as purported by the applicant. Unless proven otherwise, it is submitted that the re-application of the Gordon reference is deemed proper (see also the comments by Judge Barrett in the Decision on Appeal dated June 7, 2005).

The applicant argued at pages 23-24 of the amendment filed February 2, 2006 concerning that "...Conover declaration traverses rejecting that claim under 35 USC 102(e) based upon the Gordon patent because the present application and the Gordon patent claim patentably different inventions ... the Gordon patent lacks an enabling disclosure of pre-defined data structure NULL P-frames ...". The Examiner wants to point out that such arguments have been addressed in the above.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

3/29/06

RELATED PROCEEDINGS APPENDIX

JUNE 7, 2005

DECISION ON APPEAL

Appeal No. 2005-0252

Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte MARK D. CONOVER

Appeal No. 2005-0252
Application No. 09/168,644

HEARD: May 3, 2005

Before BARRETT, RUGGIERO, and DIXON, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-7, which are all of the claims pending in the present application.

The disclosed invention relates to a method for producing, from data that specifies a single still image, a compressed video bitstream having a plurality of frames. The still image is encoded into data specifying a single intra ("I") frame, and a single copy of the I frame data is combined with at least one null frame in the compressed video bitstream.

According to Appellant (specification, pages 11 and 12), the assembling of the compressed video bitstream in this manner produces frames of decoded video that reduces the occurrence of the appearance of undesired visual pulsing of the still image.

Claim 1 is illustrative of the invention and reads as follows:

1. A method for producing a compressed video bitstream that includes compressed video data for a plurality of frames from data that specifies a single still image, the method comprising the steps of:

fetching the data for the still image;

encoding the data for the single still image into data for an intra ("I") frame;

storing the encoded I frame data; and

assembling the compressed video bitstream by appropriately combining data for:

at least a single copy of the stored I frame;

at least one null frame; and

various headers required for decodability of the compressed video bitstream;

whereby decoding of the compressed video bitstream produces frames of video which produce images that do not appear to pulse visually.

The Examiner relies on the following prior art:

Bowater et al. (Bowater)	5,404,446	Apr. 04, 1995
Davis et al. (Davis)	5,838,678	Nov. 17, 1998 (filed Jul. 24, 1996)
Florencio	6,310,919	Oct. 30, 2001 (filed Sep. 25, 1998)

Claims 2 and 3 stand finally rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention. Claims 1-7 stand finally rejected under 35 U.S.C. § 103(a). As evidence of obviousness, the Examiner offers Bowater in view of Davis with respect to claims 1-3 and 5-7, and adds Florencio to the basic combination with respect to claim 4.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Briefs[1] and Answer for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner, the arguments in support of the rejections and the evidence of obviousness relied upon by the Examiner as support for the prior art rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the Briefs along with the Examiner's rationale in support of the rejections and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that claims 2 and 3 particularly point out the invention in a manner which complies with 35 U.S.C. § 112, second paragraph. We are also of the view that the evidence relied upon and the level of

[1] The Appeal Brief (Second) was filed September 22, 2003 (Paper No. 21). In response to the Examiner's Answer dated December 24, 2003 (Paper No. 23), a Reply Brief was filed February 23, 2004 (Paper No. 25), which was acknowledged and entered by the Examiner as indicated in the communication dated April 7, 2004 (Paper No. 26).

skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as recited in claims 1-7. Accordingly, we reverse.

We consider first the Examiner's 35 U.S.C. § 112, second paragraph, rejection of claims 2 and 3 as failing to particularly point out and distinctly claim the invention. We note that the general rule is that a claim must set out and circumscribe a particular area with a reasonable degree of precision and particularity when read in light of the disclosure as it would be by the artisan. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. Seattle Box Co. v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984).

Initially, we agree with the Examiner (Answer, pages 15 and 16) that, contrary to Appellant's arguments, the basis of the indefiniteness rejection is not that the specifications for the MPEG-1 and MPEG-2 standards recited in dependent claims 2 and 3 would, at some future time, become unavailable. Rather, the Examiner's concern is that, since the MPEG standards may change over time, the metes and bounds of the claims cannot be determined. We do not find, however, on the record before us, any support for the Examiner's requirement that specific versions and dates for the MPEG standards must be provided to satisfy the second paragraph of 35 U.S.C. § 112.

In the present situation, it is our opinion that there is no ambiguity or uncertainty since the claim language must be interpreted to mean exactly what is set forth in the words of the claim, i.e., "MPEG-1" in claim 2 means "MPEG-1" as it would be understood by one of ordinary skill at the time of filing. It is well settled that a claim cannot have different meanings at different times and, thus, its meaning must be interpreted as of its effective filing date. See Markman v. Westview Instruments, Inc., 52 F.3d 967, 986, 34 USPQ2d 1321, 1335 (Fed. Cir. 1995) (en banc) ("(T)he focus is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean."), aff'd, 517 U.S. 370 (1966).

In view of the above discussion, it is our view that the skilled artisan, having considered the specification in its entirety, would have no difficulty ascertaining the scope of the invention recited in claims 2 and 3. Therefore, the rejection of claims 2 and 3 under the second paragraph of 35 U.S.C. § 112 is not sustained.

Turning to a consideration of the Examiner's obviousness rejection of the appealed claims, we note that in rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one

having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to the Examiner's 35 U.S.C. § 103(a) rejection of appealed independent claim 1, Appellant asserts several arguments in support of the position that the Examiner has failed to establish a prima facie case of obviousness. After reviewing the arguments of record from Appellant and the Examiner, we find particularly compelling Appellant's arguments (Brief, pages 42-45; Reply Brief, pages 12-16) which assert a failure by the Examiner to establish proper motivation for the proposed combination of the Bowater and Davis references.

The Examiner's stated rationale (Answer, page 6) for the proposed combination of references, in addition to relying on generalized and unsupported assertions of common knowledge and common sense, is that "one of ordinary skill... would have had no difficulty in providing the intra frame processings as taught by Davis et al within the encoder and decoder of Bowater et al." Similarly, the Examiner asserts (id., at 7) that one of ordinary skill ... would have "no difficulty in providing the required header data for the MPEG encoding/decoding ...." It is well settled, however, that the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F. 2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Further, a review of the record before us reveals no evidence forthcoming from the Examiner that would provide support for the Examiner's conclusion of obviousness. "[T]he Board cannot simply reach conclusions based on it own understanding or experience - or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings." In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). The Examiner must not only make requisite findings, based on the evidence of record, but must also explain the reasoning by which the findings are deemed to support the asserted conclusion. See In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433-34 (Fed. Cir.

2002). The court has also recently expanded their reasoning on this topic in In re Thrift, 298 F. 3d 1357, 1363, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002).

As pointed out by Appellant (Brief, pages 12-14), the disclosure of Bowater is directed to a system which displays an image on a screen and allows for the irregular arrival of frames of video data due to transmission across an asynchronous network. As part of the solution to the irregular frame arrival time problem, Bowater adds null frames to the transmitted still and relative frames at the decoder end of the system, i.e., at destination computer 13. Davis, on the other hand, is directed to a system for preprocessing streams of compressed encoded data so as to permit a decoder to decode the streams back-to-back without being reset. As part of the preprocessing in Davis, video frames are deleted that cannot be properly decoded because they are not temporally correct, and the number of audio frames is adjusted so that the audio and video sequences start within a predetermined time. In our view, given the disparity of problems addressed by the applied prior art references, and the differing solutions proposed by them, any attempt to combine them as proposed by the Examiner could only come from Appellant's own disclosure and not from any teaching or suggestion in the references themselves.

It is further our opinion that even assuming, arguendo, that proper motivation were established for combining Bowater and Davis, there is no indication from the Examiner as

to how and in what manner the references would be combined to arrive at the specific combination set forth in independent claim 1. In our view, the Examiner has combined the video data preprocessing teachings of Davis with the irregular frame rate display features of Bowater in some vague manner without specifically describing how the teachings would be combined to arrive at the claimed invention. This does not persuade us that one of ordinary skill in the art having the references before her or him, and using her or his own knowledge of the art, would have been put in possession of the claimed subject matter. In view of the above discussion, in order for us to sustain the Examiner's rejection, we would need to resort to impermissible speculation or unfounded assumptions or rationales to supply deficiencies in the factual basis of the rejection before us. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968), rehearing denied, 390 U.S. 1000 (1968).

We have also reviewed the Florencio reference applied by the Examiner to address the I frame data buffer storage feature of dependent claim 4. We find nothing, however, in the disclosure of Florencio which would overcome the innate deficiencies of Bowater and Davis discussed supra.

Accordingly, since we are of the opinion that the prior art applied by the Examiner does not support the obviousness rejection, we do not sustain the Examiner's 35 U.S.C.

§ 103(a) rejection of independent claim 1, nor of claims 2-7 dependent thereon.

Therefore, the decision of the Examiner rejecting claims 1-7 is reversed.

REVERSED

JOSEPH F. RUGGIERO
Administrative Patent Judge

JOSEPH L. DIXON
Administrative Patent Judge

) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES

JFR/lp

BARRETT, Administrative Patent Judge, concurring.

I agree with the majority's decision, but write separately because I feel that a new ground of rejection should be entered as to at least independent claim 1 under 35 U.S.C. § 102(e) over Gordon, U.S. Patent 6,324,217, issued November 27, 2001, based on an application filed July 8, 1998 (three months before appellant's filing date) (copy attached). I would leave it to the examiner determine the patentability of dependent claims 2-7.

Gordon is directed to encoding of still images such as a movie information screen (MIS) to make streams that are well behaved, i.e., that do not cause decoder buffer underflow or overflow (col. 1, line 52, to col. 2, line 6). Gordon discloses inserting NULL frames after an I-frame (col. 3, lines 36-47):

> GOP replicator 120 utilizes the still image representative I-frame as an anchor frame for a GOP data structure. The GOP data structure formed by the GOP replicator 120 comprises the still image representative I-frame followed by a plurality of NULL forward predictive coded frames (P-frames). A NULL forward predictive coded frame comprises a "zero motion vector frame["] (i.e., a P-frame having relatively inconsequential motion vectors) based on an anchor frame, e.g., the still image representative I-frame. Thus, each NULL P-frame, when decoded, will produce a picture that is virtually identical to the anchor frame from which it is based.

Gordon also discloses a data structure for decoding the video bitstream, which is considered a header (col. 4, lines 53-65):

> In the above-described apparatus 100, the GOP replicator 120 utilizes the insertion of N NULL P-frames, where N is an integer, after an I-frame to form a

> GOP. In this embodiment of the invention each of the NULL P-frames comprises a pre-defined data structure that is simply inserted into the appropriate memory location following the stored I-frame. In the case of an MPEP2 information stream, a NULL frame utilized by the inventor comprises a 38 byte data structure that informs the decoder to utilize all macroblocks from the previous anchor frame and to do so without displacing the macroblocks (i.e., zero motion vectors). In essence, the NULL P-frames are interpreted by the decoder as "repeat last anchor frame" commands.

In addition, the presence of a header is considered inherent in an MPEP-2 video bitstream. The claimed result of "images that do not appear to pulse visually" is inherent in Gordon.

It is noted that Gordon claims the same patentable invention as appellant and, therefore, cannot be antedated by an oath or declaration under 37 C.F.R. § 1.131.

Lee E. Barrett

LEE E. BARRETT
Administrative Patent Judge

) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES

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What is claimed is:

1. A method for processing an image to produce a compressed information stream, said method comprising the steps of:

intra-coding said image to produce an intra-coded information frame (I-frame);

associating said intra-coded information frame with a plurality of forward predicted information frames (P-frames) to form a group of pictures (GOP); and

replicating said GOP to produce said compressed information stream.

2. The method of claim 1, wherein said plurality of forward predicted information frames comprise NULL P-frames.

3. The method of claim 1, wherein said step of replicating is terminated upon the production of a compressed information stream having a predetermined duration.

4. The method of claim 1, wherein said step of replicating further comprises the step of:

synthesizing, for at least an I-frame of each of said replicated GOPs, a time stamp parameter indicative of a temporal offset between said I-frames.

5. The method of claim 2, wherein said plurality of NULL forward predicted information frames (P-frames) are generating by forward prediction encoding said image using substantially zero motion vectors.

6. The method of claim 2, wherein said plurality of NULL P-frames are generating by forward prediction encoding said I-frame using zero motion vectors.

7. The method of claim 1, wherein said GOP comprises a predetermined number of P-frames, said predetermined number being selected to provide a predetermined duration to said GOP.

8. The method of claim 7, wherein said predetermined duration of said GOP approximates a desired presentation duration of said image.

9. The method of claim 1, wherein:

said I-frame is associated with a presentation time stamp having a first value;

each of said P-frames associated with said I-frame are associated with respective temporally sequential presentation time stamps; and

said step of replicating includes the step of updating each of said presentation time stamps such that said output information stream comprises a sequence of I-frames and associated P-frames having respective temporally sequential presentation time stamps.

10. A method for generating an information stream for providing, on a presentation device, a relatively motionless image, said method comprising the steps of:

encoding, using a preferential bit allocation determined with respect to a group of pictures (GOP) bit budget, an image to produce an intra-frame (I-frame) encoded video information frame;

associating said intra-frame encoded video information frame with a plurality of substantially zero motion vector forward predicted (P-frame) information frames; and

replicating at least one of said substantially zero motion vector P-frames to form said information stream.

11. The method of claim 10, wherein said step of replicating comprises the step of replicating said I-frame and a plurality of said P-frames, where said I-frame and said plurality of P-frames form a GOP.

12. The method of claim 10, wherein:

said I-frame is associated with a presentation time stamp having a first value;

each of said P-frames associated with said I-frame are associated with respective temporally sequential presentation time stamps; and

said step of replicating includes the step of updating each of said presentation time stamps such that said output

information stream comprises a sequence of I-frames and associated P-frames having respective temporally sequential presentation time stamps.

13. Apparatus for processing an image to produce an MPEG-like information stream, comprising:

a frame encoder, for producing an intra-coded (I-frame) in response to said image, and for producing N number of forward predicted information frames (P-frames) in response to said I-frame, where N is an integer;

a memory, for storing said I-frame and said N number of P-frames; and

a controller, for causing said memory to repetitively output said I-frame and said N number of P-frames as a video elementary stream.

14. The apparatus of claim 13, wherein said I-frame and said N number of P-frames form a group of pictures (GOP) structure.

15. The apparatus of claim 13, wherein said plurality of forward predicted information frames comprise NULL P-frames.

16. The apparatus of claim 13, wherein said controller causes said memory to repetitively output said I-frame and said N number of P-frames until a video elementary stream having a predetermined duration is formed.

17. The apparatus of claim 13, wherein said controller synthesizes, for at least said replicated I-frames, a time stamp parameter indicative of a temporal offset between said I-frames.

18. The apparatus of claim 15, wherein said plurality of NULL forward predicted information frames (P-frames) are generating by forward prediction encoding said image using substantially zero motion vectors.

19. The apparatus of claim 14, wherein said predetermined duration of said GOP approximates a desired presentation duration of said image.

20. The apparatus of claim 13, wherein:

said I-frame is associated with a presentation time stamp having a first value;

each of said P-frames associated with said I-frame are associated with respective temporally sequential presentation time stamps; and

said controller updates each of said presentation time stamps such that said output elementary stream comprises a sequence of I-frames and associated P-frames having respective temporally sequential presentation time stamps.

21. The apparatus of claim 13, further comprising:

a multiplexer, for multiplexing said video elementary stream and an audio elementary stream to produce a program stream.

* * * * *

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Serial No.	:	09/168,644 Confirmation No. (None Assigned)
Appellant	:	Mark D. Conover
Filed	:	October 8, 1998
Title	:	ENCODING A STILL IMAGE INTO COMPRESSED VIDEO
TC/A.U.	:	2621
Examiner	:	Anand Shashikant Rao
Docket No.	:	2134
Customer No.	:	23320

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
Post Office Box 1450
Alexandria, Virginia 22313-1450

Sir:

APPEAL BRIEF TRANSMITTAL

Enclosed herewith is an Appeal Brief for the patent application identified above together with a check in the amount of the small entity fee for filing an Appeal Brief.

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If any additional fee is required, the Commissioner for Patents is hereby authorized to charge any deficiency or credit any surplus in any relevant fee to Deposit Account No. 19-0735. A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted

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Dated: 9 October, 2007

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